

REMARKS

Claims 3, 4, 7-13, 16-21, 25, 29, 31-33 and 45-50 are pending in the application and are rejected. Claims 45-49 are objected to. Claims of priority are disputed.

Priority

The Office Action indicates Applicants' claims of priority are not proper.

The present application resulted from International Patent Application PCT/GB99/02138 and entered the national stage in the U.S. under 35 U.S.C. § 371. All requirements of § 371 were met as reflected by a Notification of Acceptance of Application that was mailed by the US PTO on 9 February 2001.

The '2138 PCT application was filed on 5 July 1999 and, according to provisions of the Paris Union, it properly claimed priority of two British patent applications filed on 3 July 1998 and 7 April 1999.

Applicants' claims of priority are proper.

Double Patenting

Claims 3, 4, 7-13, 16-21, 25, 29, 31-33 and 45-50 are rejected under the judicial doctrine against obviousness-type double patenting in view of claims in U.S. patent 6,023,233. The Office Action indicates the only difference between claims is that the claims in the present application recite a minimal data rate and claims in the '233 patent recite a predetermined rate, and it states that it would have been obvious "a predetermined data rate can be a minimum data rate or vice versa."

Applicants respectfully traverse this double-patenting rejection. The differences between the claims in the present application and the '233 patent are greater than what is alleged in the Office Action.

Independent claims 1 and 25 in the present application each have an element that determines a minimum data rate to which a packetized stream can be repacketized for successful decoding by a decoder having a given first-in-first-out (FIFO) buffer size. No claim of the '233 patent has any feature that suggests this element.

Independent claim 45 is directed toward a device for decoding. The only claims in the '233 patent that are directed toward a method or apparatus for decoding are claims 29-31. Claim 45 in the present application recites a feed buffer that is coupled ahead of a FIFO buffer. Nothing in claims 29-31 of the '233 patent have anything that suggests this feed buffer.

All other claims in the present application are dependent on one of the independent claims discussed in the preceding paragraphs and include further limitations.

Claim Objections

Claims 45-49 are objected to because independent claim 45 recites the word "organised." According to the Office Action, there is no such word.

In response, Applicants amend claim 45 to use a different spelling of the word that may be more familiar to the Examiner.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 16-21, 48 and 49 are rejected under 35 U.S.C. § 112, second paragraph, for being indefinite.

The Office Action indicates claims 21, 48 and 49 are rejected because the term "MLP" is unclear.

In response, Applicants amend these claims to specify the meaning of this acronym.

The Office Action indicates claims 16-21 are rejected because claims 16-21 describe a system but claim 3, upon which these claims depend, describes a process.

Applicants disagree. Claim 3 is directed toward an "encoder," which is an apparatus. Claims 16-21 are directed toward a system that comprises the apparatus of claim 3.

Claim Rejections Under 35 U.S.C. § 103

Claims 3, 4, 7-13, 16-21, 25, 29, 31-33 and 45-50 are rejected under 35 U.S.C. § 103 for being unpatentable over specified combinations of prior art. The principal prior art used to reject all independent claims is U.S. patent 5,619,337 (referred to as "Naimpally") in view of U.S. patent 5,617,145 (referred to as "Huang").

Claims 3 and 25

With regard to independent claims 3 and 25, the Office Action indicates that:

- Naimpally teaches an encoder for producing an encoded packetized stream that comprises means for determining data rate to which the packetized stream could be repacketized for successful decoding by a decoder having a given first-in-first-out (FIFO) buffer size" (col. 5 lns. 42-63);
- Naimpally does not teach "determining a minimum data rate and introducing control data into the encoded variable rate stream, the control data representing the minimum";
- Huang teaches these missing features (col. 6 ln. 59 to col. 7 ln. 45); and
- it would have been obvious to incorporate the teachings of Huang into the teachings of Naimpally "in order to encode/decode data."

Applicants respectfully traverse the rejection of claims 3 and 25 for each of two reasons: (1) the alleged motivation to incorporate teachings from Huang into the teachings of Naimpally did not exist, and (2) even if combined, the combined teachings of these two references do not teach all that is claimed.

Motivation to Combine (Claims 3, 25)

The alleged motivation to incorporate the teachings from Huang into the teachings in Naimpally did not exist. The Office Action argues that a person of ordinary skill in the relevant arts would have been motivated to modify teachings in Naimpally by teachings in Huang "in order to encode/decode data." The system disclosed in Naimpally was capable of encoding data streams that conform to the MPEG-2 standard and decoding was already known as explained in Naimpally. (Were this not true, the invention disclosed in Naimpally would have been useless.) In other words, the need to encode and decode data would not have motivated a person of ordinary skill to look for some teaching in addition to that disclosed in Naimpally.

The Office Action fails to provide any other reason for making the alleged combination; therefore, it fails to make out a *prima facie* case of obviousness and the rejection should be withdrawn for this reason alone.

Combination Fails to Teach All Features of Claims 3, 25

Even if combined, the teachings from Naimpally and Huang fail to teach all that is claimed.

Naimpally discloses a system that extracts encoded data for one program from an encoded multi-program data stream and records the extracted data on a digital VCR in a form that conforms to the MPEG-2 standard. The text in col. 5 lns. 42-63 cited in the Office Action describes one feature of a system that generates or encodes the multi-program data stream (see col. 5 lns. 31-42; col. 3 lns. 46-61). This feature implements a conventional feedback loop to control the data rate of the packets for each program in the encoded multi-program data stream. If the number of encoded packets in a FIFO buffer exceed an upper threshold, a signal is sent to the encoder to reduce either the rate or the size of the encoded packets. If the number of packets in the FIFO buffer fall below a lower threshold, a signal is sent to the encoder to increase the rate or size of the encoded packets or generate stuffing bits.

Contrary to what is asserted in the Office Action, the cited text does not disclose or suggest determining a data rate to which a packetized stream can be repacketized for successful decoding by a decoder having a given first-in-first-out (FIFO) buffer size. The cited text refers only to an initial encoding of a data stream. Nothing is said about repacketizing an encoded packetized stream.

Huang discloses adaptively calculating bit allocations for very low bit rate video and audio coding systems. The text in col. 6 ln. 59 to col. 7 ln. 45 that is cited by the Office Action describes specific calculations that may be used to determine the bit allocation for a particular picture and also describes how this bit allocation may be used to select the encoding mode for the picture.

Contrary to what is asserted in the Office Action, the cited text does not disclose or suggest determining the minimum data rate to which a packetized stream can be repacketized for successful decoding by a decoder having a given first-in-first-out (FIFO) buffer size. Just as for Naimpally, the cited text refers only to an initial encoding of a data stream. Nothing is said about minimum data rates or repacketizing an already encoded packetized stream.

Claim 45

With regard to independent claim 45, the Office Action indicates that

- Naimpally teaches a device for decoding variable rate data organized as a stream of packets, each packet including a corresponding decoder time stamp (Abstract), the device comprising: a FIFO buffer having an input coupled to the feed buffer for receiving the stored data, and having an output (Abstract, col. 1 lns 21-34);
- Naimpally does not teach a feed buffer that receives the stream of packets to mitigate any interruption to the stream of packets;
- Huang teaches a feed buffer that receives the stream of packets to mitigate any interruption in the stream of packets (Abstract, Figs. 1-9); and
- it would have been obvious to incorporate the teachings of Huang into the teachings of Naimpally "in order to encode/decode data."

Applicants respectfully traverse the rejection of claims 3 and 25 for each of two reasons: (1) the alleged motivation to incorporate teachings from Huang into teachings in Naimpally did not exist, and (2) even if combined, teachings from these two references do not teach all that is claimed.

Motivation to Combine (Claim 45)

The alleged motivation to incorporate the teachings from Huang into the teachings in Naimpally did not exist for the same reasons discussed above in connection with claims 3 and 25.

In addition, any teachings in Naimpally that are relevant to claim 45 would pertain to decoders but the teachings in Huang pertain to encoders. The Office Action does not set forth any reason a person of ordinary skill would combine the encoder teachings in Huang with whatever decoder teachings are in Naimpally; therefore, no *prima facie* case of obviousness has been made and the rejection should be withdrawn.

Combination Fails to Teach All Features of Claim 45

Even if combined, the teachings from Naimpally and Huang fail to teach all that is claimed.

Huang discloses adaptively calculating bit allocations for very low bit rate video and audio coding systems. Applicants are unable to discover anything particularly relevant in Huang that pertains to decoders or decoding.

Contrary to what is asserted in the Office Action, the Abstract and Figs. 1-9 referred to in the Office Action do not disclose or suggest a feed buffer as claimed. In addition, this cited material pertains to encoders rather than decoders.

Dependent Claims

All other claims in the present application are dependent on one of the independent claims discussed above and add further limitations that are not disclosed or suggested by Naimpally and Huang, either individually or in combination.

CONCLUSION

Applicants amend the application and request reconsideration in view of the discussion set forth above.

Respectfully submitted,

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Certificate of Transmission

I certify that this Response to Office Action and any following materials are being transmitted by facsimile on February 2, 2006 to the U.S. Patent and Trademark Office at telephone number (571) 273-8300.

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